

*Application No. 10/646,704
Amendment dated January 30, 2009
Reply to Office Action of November 2, 2008*

*Docket No.: 0505-1227P
Art Unit: 3682
Page 13 of 20*

AMENDMENTS TO THE DRAWINGS

One sheet of Replacement Drawings is attached hereto in order to add reference numeral to elements shown in FIG 3 as originally filed, and now mentioned in the specification and set forth in the claims. No new matter has been added.

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 4-7, 11-15, 21 and 26 were previously cancelled without prejudice to or disclaimer of the subject matter contained therein. Claims 1-3, 8-10, and 16-20 and 22-25, 27-31 are pending. Claims 1, 8, 16, 17, 20, 23, 25, 27, and 28 are amended, and claims 29-31 are added. Claims 1, 17, and 23 are independent. The Examiner is respectfully requested to reconsider the rejections in view of the amendments and remarks set forth herein.

Examiner Interview

If, during further examination of the present application, any further discussion with Applicants' Representative would advance the prosecution of the present application, the Examiner is encouraged to contact Carl T. Thomsen, at (703) 208-4030 (direct line) at his convenience.

Amendments to the Drawings

One sheet of Replacement Drawings is attached hereto in order to add reference numeral to elements shown in FIG. 3 as originally filed, and now mentioned in the specification and set forth in the claims. No new matter has been added.

Amendments to the Specification

Paragraph [0024] of the specification has been amended in order to provide antecedent basis for the subject matter now set forth in the claims. No new matter has been added.

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Rejections Under 35 U.S.C. § 103(a)

Claims 1-3, 9, 10, 16-20, 22, 27, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsergas (U.S. Patent Publication 2004/0031343) and Yeh et al. (U.S. Patent Publication 2002/0124673), and further in view of Overhues et al. (U.S. Patent 5,112,178);

claims 23 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsergas in view of Yeh et al.;

claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsergas and Yeh et al. in view of Overhues et al.; and

claims 1-3, 8, 9, 10, 27, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tsergas and Yeh et al. and further in view of Kitamara et al. (U.S. 6,763,552).

These rejections are respectfully traversed.

Amendments to Independent Claims 1 and 17

Independent claims 1 and 17 have been amended herein each recite a combination of elements directed to a gear transmission device, including *inter alia*

“wherein an inner-most perimeter of the elastic member has a non-circular shape when viewed in plan view, an outer diameter of the elastic member is substantially equal to an inner diameter of the said cylindrical portion, ...

wherein the cylinder portion formed on the first opposed end face of the first gear consists of a single cylinder portion."

See FIGS. 2 and 3, and paragraph [0024] of the specification for support.

In particular, FIG. 2 discloses elastic member 31 having an outer diameter substantially equal to an inner diameter of the sole cylinder portion 30. FIG. 3 of the present application clearly illustrates wave washer (elastic member) 31 having outer perimeter 31Pout and inner-most perimeter 31Pin having a non-circular shape. In addition, since the first fixed wall is a crankshaft side wall and the second fixed wall is another side wall, maintenance of the regulating means can be performed easily.

Regarding Tsergas

This document has no elastic member.

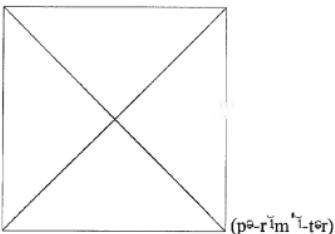
Regarding Yeh et al.

This document merely discloses a cylinder portion on BOTH sides of ring 42.

Regarding Overhues et al.

As previously argued, Overhues et al. merely discloses a hole 5 having a circular inner-most perimeter. See FIGS. 1-6. The Examiner points to groove 4 of washer 1 in Overhues et al. FIGS. 7a and 7b, and alleges that groove 4 teaches an inner-most perimeter of washer 1. Applicants submit that the Examiner is mistaken.

The Examiner is directed to <http://www.thefreedictionary.com/perimeter> which defines "perimeter" as follows:



perim^eter
n.

1. Mathematics

- a. A closed curve bounding a plane area.
- b. The length of such a boundary.

2. The outer limits of an area. See Synonyms at circumference.

By contrast, Overhues et al. (column 4, lines 48-60) merely disclose a groove 4 having leaves which are symmetrically arranged about a central opening (inner-most perimeter) 5. In FIGS. 1, 2, and 7c, groove 4 is concentric with the central opening (inner-most perimeter) 5. Applicants respectfully submit that groove 4 is separate and distinct from the inner-most perimeter (boundary of plane area at opening 5) of washer 1.

Therefore, Overhues et al. cannot make up for the admitted deficiencies of Tsergas and Yeh et al.

At least for the reasons explained above, Applicants respectfully submit that the combination of elements as set forth in each of independent claims 1 and 17 is not disclosed or made obvious by the prior art of record, including Tsergas, Yeh et al., and Overhues et al.

Therefore, independent claims 1 and 17 are in condition for allowance.

Amendments to Independent Claim 23

While not conceding the appropriateness of the Examiner's rejection, but merely to advance the prosecution of the present application, independent claim 23 has been amended to recite a combination of elements directed to a gear transmission device, including *inter alia*

"when the elastic member is in a compressed state, only the outer surface portion of the plane washer is able to contact the end of the cylinder portion,

wherein the cylinder portion formed on the first opposed end face of the first gear consists of a single cylinder portion."

See FIG. 2 for support, which clearly illustrates

Regarding Tsergas

This document has no elastic member.

Regarding Yeh et al.

By contrast, Yeh et al. merely disclose a coil spring 5 fitting in a groove 42, and the plane washer 7 contacting second gear 4 on BOTH sides of the coil spring 5.

At least for the reasons explained above, Applicants respectfully submit that the combination of elements as set forth in independent claim 23 is not disclosed or made obvious by the prior art of record, including Tsergas, and Yeh et al.

Therefore, independent claim 23 is in condition for allowance.

Dependent Claims

The Examiner will note that dependent claim 8, 16, 20, 25, 27, and 28 have been amended, and dependent claims 29-31 have been added to set forth additional novel features of the invention.

All dependent claims are in condition for allowance due to their dependency from allowable independent claims, or due to the additional novel features set forth therein.

Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are respectfully requested.

All pending claims are now in condition for allowance.

CONCLUSION

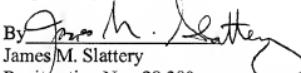
All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. It is believed that a full and complete response has been made to the outstanding Office Action, and that the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, he is invited to telephone Carl T. Thomsen, (Reg. No. 50,786) at (703) 208-4030 (direct line).

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly extension of time fees.

Dated: January 30, 2009

Respectfully submitted,

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Attachments: One Sheet of Replacement Drawings.


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